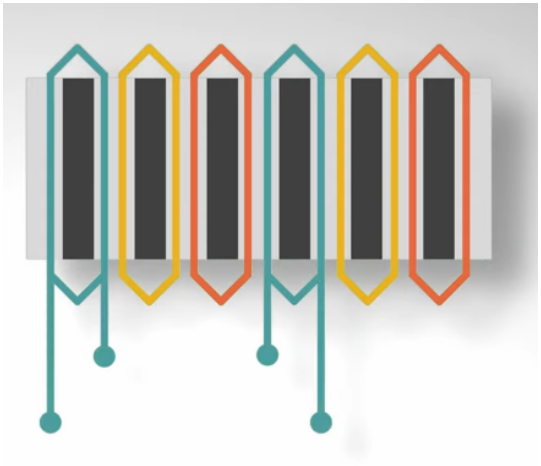
Concentrated Winding vs Distributed Winding

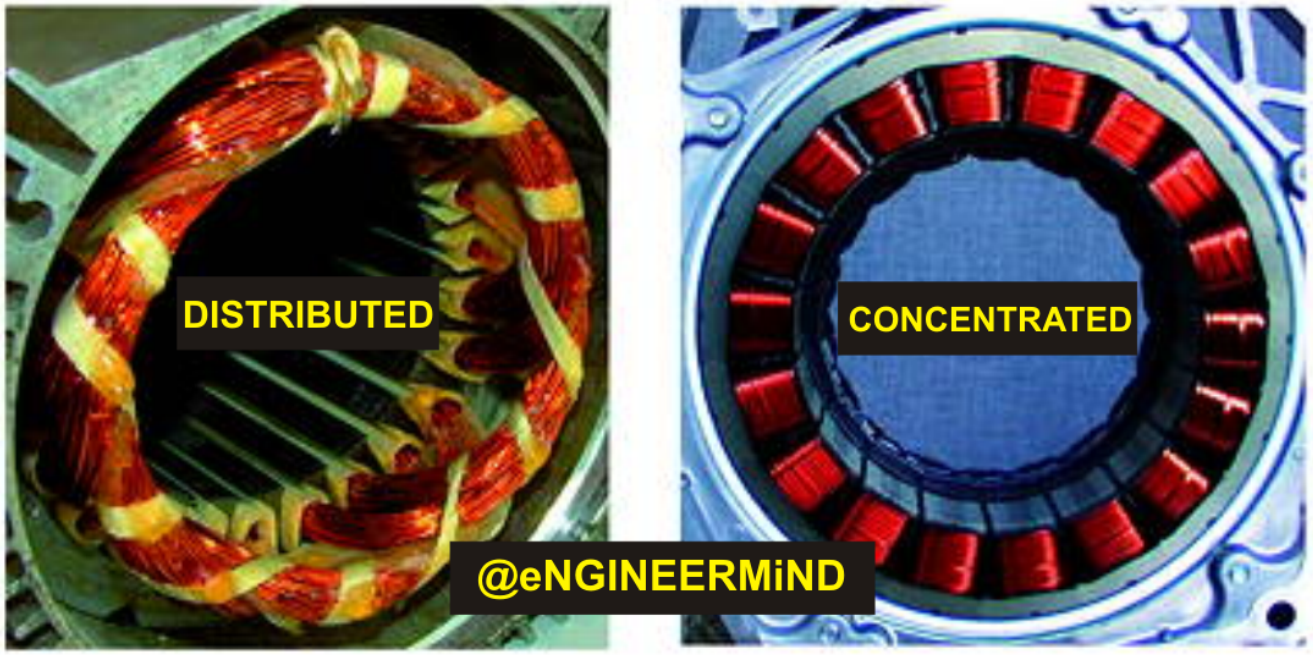
Distributed winding

- Produces nearly sine waveform
- Heating is more uniform.

Concentrated winding

- Produces more of trapezoidal wave so it produce more emf(more torque).





Analogy Distributed winding

Now imagine a ball and a string. Here you start making one circular loops around the ball, and you will end up shifting the loops in each successive step, there by covering the whole area. So basically the turns of the string are distributed. This is what distributed winding is.

Concentrated winding

Imagine a pen, and a string. You start winding the string around the pen, and you continue to do till you reach the other end. What you get is a concentrated winding. You will find this in transformer. If you see from top, it looks like a stack of circles or concentric circles, that's why such nomenclature.